Name: Rachel Fischhoff Grade: 5 Date: May 2, 2012

13-2 Relating Shapes and Solids

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| Lesson Sources: Envision |
| Lesson Objectives: Students will learn to use a two dimensional figure to represent a 3D solid. |
| Standards: M(G&M)–5–3 **Uses properties or attributes** (shape of bases, number of lateral faces, or number of bases) **to identify, compare, or describe three-dimensional shapes** (rectangular prisms, triangular prisms, cylinders, spheres, pyramids, or cones). (State) |
| Multicultural Content: |
| Materials and Advanced Preparation: Example nets for connection, textbook pages for students |
| Prior Knowledge and Skills Needed: knowledge of a variety of 3D solids |
| Key/New Vocabulary: net: a plane figure which, when folded, gives a solid figure |

Lesson Procedure: Part One

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| **Time** | **Teacher Actions** | **Student Learning Activities** | **Form of Assessment** |
| 1 min | **1. Connection**   * Mathematicians, today I want to continue talking about solids—prisms, cubes, pyramids, cylinders. What I want to tell you about today is nets. A net is a plane figure—a flat, 2D figure—that, when folded, gives you a solid figure. * Take a look at my first net…What solid do you predict this net will make? *(Cube)* * Now take a look at this second net. What solid do you predict this net will make? *(triangular prism)* | Active listening | * Predictions |
| 10 min max | **2. The Teaching (The Giving of Information):**   * Today you will learn to use two-dimensional shapes to represent three-dimensional solids. * Let’s look at a few together: (Guided practice 1-4) Square pyramid and cube with a second net * What solid do you predict this net will make? How did you make that prediction? What information did you use? | * Actively engage with guided practice problems | * Sharing out |
|  | **3. Have-A-Go (optional)**   * Open up your own notebook. Draw a net for this solid (use object like tissue box, eraser, etc…) * Share some out | How will students be actively involved?  By:   * Practicing the mini-lesson | * Confering * Share out |
|  | **4. The Link**   * Mathematicians, today you will use two-dimensional shapes to represent three-dimensional solids. * You will work independently on problems 5-13. If you have completed all of the problems, check your work with a friend, then let me know. | **(Workshop Time)**   * Using strategies from rug—what to notice, how to imagine 3D shape | * Conferring |
|  | **5. Closing (at the share)**  Sharing out what was easy and what was tricky  Share several nets for one solid  Where are the faces, where are the edges, where are the vertices? | * Choose some students who created different nets | * Relate back to knowledge of solids from yesterday. |

**Reflections:**

How did the lesson plan work? What was effective? What did you learn? What would you change for tomorrow or the next time you will use this plan?